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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/511,795	02/23/2000	Richard Schunk	37069/JEC/X2	3884

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ALCATEL INTERNETWORKING, INC.
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EXAMINER

LEVITAN, DMITRY

ART UNIT PAPER NUMBER

2662

DATE MAILED: 08/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/511,795

Applicant(s)

SCHUNK ET AL.

Examiner

Dmitry Levitan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 and 24 is/are rejected.
- 7) ☒ Claim(s) 21-23 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

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The amendment, filed 06/17/04 has been entered. Claims 1-24 remain pending.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 8, 14, 15 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yin (US 5,982,748).

Yin teaches in a network switch (Fig. 1 and 4:31-34), a method or an apparatus for providing tiered access to system resources, comprising:

Maintaining in a data store of the network switch (queues 1-5 on Fig. 1 and 4:49-55) , two or more access tiers (CBR, VBR and etc. queues on Fig. 1 and 4:49-55), each of them associated with a connection request characteristic (required Qos and traffic parameters in Tables 1 and 2) and an access threshold ($F(i)*B(i)$ as shown in steps 76 of Fig. 4 or 90 of Fig. 5 and 8:21-39);

Receiving an incoming connection request (step 32 in Fig. 2 and 5:8-13);

Determining the characteristic of the incoming connection request (identifying class of service in step 34 of Fig. 2);

Determining the access tier associated with the request (CBR branch on Fig. 2 and 5:16-25);

Identifying a resource requested by the request (parameters of the request in steps 36 or 42 or 48 of Fig. 2 and 5:13-17);

If the incoming connection request is associated with the first tier (CBR queue on Fig. 1), then allocating the identified resource (over-subscribing allocated resources for this class 7:46-60 for preferential treatment of a particular class of service);

If the incoming connection request is associated with the second tier (VBR branch on Fig. 2), then

Determining an amount of current usage for the identified resource (determine existing subscribed bandwidth for rt-VBR traffic in step 86 of Fig. 5 and 8:51-60); and

Allocating the identified resource to the incoming connection request if the amount of current usage is less than the associated access threshold (steps 90 and 94 on Fig. 5 and 9:4-10).

Monitoring usage of the resources at each access tier (rate monitor 16 on Fig. 1 and 4:56-59).

Yin does not teach automatically allocating resources.

Official notice is taken that automatically allocating resources (allocating 100% of available resources) is well known and expected in the art.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add automatically allocating resources to the system of Yin to improve the system preferential treatment of Qos sensitive traffic.

In addition, regarding claim 8, Yin teaches a data store (Queues 1-5 on Fig. 1), means for receiving a connection request (CAC 10 on Fig. 1), means for determining characteristic, access

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tier, allocating resources (CAC 10, Queue scheduler 14, database 15 and queue selector 28 on Fig. 1) and means for measuring current usage (rate monitor 16 on Fig. 1).

In addition, regarding claim 14, Yin teaches a processor (processor is inherently part of CAC 10, because functions like determining or calculating are always done by processors) and plurality interface lines (inherently part of Yin system, because Yin teaches his system as a switch, and switches always have plurality of interface lines).

In addition, regarding claim 24, Yin does not teach terminating an existing connection based on its access level if the amount of current usage is greater than the access threshold associated with the assigned level.

Official notice is taken that terminating an existing connection is well known and expected in the art.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add termination a low priority connection (UBR col. 1 lines 52-55), when the amount of current usage (delay requirements in Table 1) is greater than the access threshold (maximum delay bound 6:54-67) associated with the assigned level to the system of Yin to improve the system utilization of network resources.

2. Regarding claims 2, 9 and 16, Yin teaches de-allocating the resource from a terminated connection (4:43-45). Yin does not teach terminating an existing connection based on its access level if the amount of current usage is greater than the access threshold associated with the assigned level.

Official notice is taken that terminating an existing connection is well known and expected in the art.

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to terminate a low priority connection (UBR col. 1 lines 52-55), when the amount of current usage (delay requirements in Table 1) is greater than the access threshold (maximum delay bound 6:54-67) associated with the assigned level to the system of Yin to improve the system utilization of network resources.

3. Regarding claims 4, 11 and 18, Yin teaches a method and apparatus wherein the characteristic of the incoming call is a type of inlink carrying the incoming connection request (1:26-38).

Regarding claims 6, 12 and 20, Yin teaches a method and apparatus wherein the characteristic of the incoming call is a type of user submitting the connection request (constant data, voice. Video 1:39-55).

Regarding claims 7 and 13, Yin teaches a method and apparatus comprising communicating a request for the identified resource, the communicated request including the identified quality of access level (CBR, ABR, UBR on Fig. 1 and 1:39-55); Communicating a response indicating that the identified resource is available (2:26-29) and communicating a request to allocate the identified resource (2:29-41).

4. Regarding claims 5 and 19, Yin substantially teaches the limitations of parent claims 1, 14 including storing information regarding existing connections (4:40-45) and updating it.

Yin does not teach associating a connection request with a phone number.

Official notice is taken that associating a connection request with a phone number is well known and expected in the art.

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to use of phone numbers to identify existing and new connections in the system of Yin to improve the system utilization of network resources.

5. Claims 3, 10 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yin in further view of Hardwick (US 5,550,816).

Yin substantially teaches the limitations of parent claims 1, 2, 8, 9 and 14 including allocating bandwidth to different service classes and monitoring it.

Yin does not teach plurality of virtual routers as different service classes.

Hardwick teaches plurality of virtual routers as different service classes (closed user groups 5:47-65 and 15: 17-53).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add plurality of virtual routers of Hardwick to the system of Yin to improve the system utilization of network resources.

Allowable Subject Matter

6. Claims 21-23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Notes.

7. Examiner interpretation of Yin teaching in this Office action is different from the Office action dated 3/17/04, because the scope of the claims has been changed by the Amendment.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dmitry Levitan whose telephone number is 703-305-4384. The examiner can normally be reached on 8:30 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on 703-305-4744. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Dmitry Levitan
Patent Examiner.
08/05/04.



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